

In the Claims:

This listing of claims will replace all prior versions and listings of claims in this application.

1 (Currently amended). A method of separating molecules, comprising the step of directing the molecules through a [[A ]]separating column, for a miniaturized gas chromatograph, having wherein the separating column comprises: a channel (2) for a fluid stream having molecules to be analyzed (analyte molecules), the channel (2) having comprising opposing curves (3, 4) having comprising turning points (7, 8) where the flow direction of the fluid stream flowing through the channel-inflects to an opposite curvature, changes to the particular other direction;

characterized in that wherein the diameter of the channel (2) is greater than the path which an analyte molecule covers through diffusion on its way between two sequential turning points (7, 7a; 8, 8a) located at the beginning of sequential curves that each have the same curvature.

2 (Currently amended). The separating column-method according to Claim 1, characterized in that the diameter of the channel (2) is at least ten times greater than the path which an analyte molecule covers through diffusion on its way between two sequential turning points (7, 7a; 8, 8a) located at the beginning of sequential curves that each have the same curvature.

3 (Currently amended). The separating column-method according to claim 1, characterized in that the number of the turning points (7, 7a) that change the flow through the channel to a first direction inflect the channel to a first curvature-is equal to the number of the turning points (8, 8a) that change the flow through the channel to a second direction inflect the channel to a second curvature-which is an opposite of the first-curvature direction.

4 (Currently amended). The separating column-method according to claim 1, characterized in that the separating column (1)-channel (2) has at least one loop (13) on whose legs (22, 23) the curves (3, 4) are provided.

5 (Currently amended). The separating column method according to claim 1, characterized in that the curves (3, 4) follow one another directly.

6 (Canceled).

7 (Currently amended). The separating column method according to claim 19, characterized in that the curves (3) on the legs (22, 23) are diametrically opposite one another, so that the curves (3) lie on a shared line (24) perpendicular to an axis (9) drawn through the leg (22) in the longitudinal direction.

8 (Currently amended). The separating column method according to claim 19, characterized in that the curves (3) on the leg (22) each lie diametrically opposite the curves (4) on the neighboring leg (23).

9 (Currently amended). The separating column method according to claim 1, having wherein the channel (2) comprises legs (22, 23) that are connected by linear sections (12, 19, 17, 20).

10 (Currently amended). The separating column method according to claim 19, having wherein the channel (2) comprises legs (22, 23) that are connected to one another by curves (15, 18, 16, 26, 27, 28).

11 (Currently amended). A method of separating molecules, comprising the step of directing the molecules through a [[A ]]micro-chromatograph, particularly a gas micro-chromatograph, characterized in that- wherein the micro-chromatograph has at least one comprises a separating column having comprising a channel (2) for a fluid stream having molecules to be analyzed (analyte molecules), the channel (2) having comprising opposing curves (3, 4) having turning points(7,8)- (7,8) where the flow direction of the fluid stream flowing through the channel infllets to an opposite

curvature, changes to the particular other direction;

characterized in that wherein the diameter of the channel (2) is greater than the path which an analyte molecule covers through diffusion on its way between two sequential turning points (7, 7a; 8, 8a) located at the beginning of sequential curves that each have the same curvature.

12 (Currently amended). The micro-chromatograph method according to Claim 11 claim 11, characterized in that the micro-chromatograph has multiple separating columns (1) on a shared semiconductor chip.

13 (Currently amended). The micro-chromatograph method according to Claim 12 claim 12, characterized in that the separating columns (1) are each provided with stationary phases which have different chemical and/or physical properties.

14 (Currently amended). The micro chromatograph method according to Claim 12 claim 12, characterized in that the separating columns (1) on the chip are connected to one another in series and/or in parallel.

15 (Currently amended). The separating column method according to Claim 5 claim 4, characterized in that the legs (22, 23) run essentially parallel.

16 (Currently amended). The separating-column-method according to Claim 15 claim 15, characterized in that the curves (3) on the legs (22, 23) are diametrically opposite one another, so that the curves (3) lie on a shared line (24) perpendicular to an axis (9) drawn through the leg (22) in the longitudinal direction.

17 (Currently amended). The separating column-method according to Claim 15 claim 15, characterized in that the curves (3) on the leg (22) each lie diametrically opposite the curves (4) on the neighboring leg (23).

18 (Currently amended). The ~~micro chromatograph~~-method, according to Claim 12 claim 12, wherein said semiconductor chip is a silicon chip.

19 (Currently amended). A method of separating molecules, comprising the step of directing the molecules through a [[A ]]separating column, for a miniaturized gas chromatograph, having wherein the separating column comprises: a channel (2) for a fluid stream having molecules to be analyzed (analyte molecules), the channel (2) having comprising opposing curves (3, 4) having comprising turning points (7, 8) where the flow direction of the fluid stream flowing through the channel inflents to an opposite curvature, changes to the particular other direction;

characterized in thatwherein the diameter of the channel (2) is greater than the path which an analyte molecule covers through diffusion on its way between two sequential turning points (7, 7a; 8, 8a) located at the beginning of sequential curves that each have the same curvature;

wherein the channel (2) ofthe separating column (1) has at least one loop (13) on whose legs (22, 23) the curves (3, 4) are provided;

wherein the legs (22, 23) run essentially parallel.

20 (Currently amended). The ~~separating column~~-method according to claim 19, wherein the diameter of the channel (2) is at least ten times greater than the path which an analyte molecule covers through diffusion on its way between two sequential turning points (7, 7a; 8, 8a) located at the beginning of sequential curves that each have the same curvature.